

# Missouri Resources

Summer 2019 • Volume 36 • Number 3







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**ABOVE**  
A young trumpet vine climbs a tree on the River Landing Trail at Arrow Rock State Historic Site, in Saline County.  
MoDNR PHOTO BY ANDREW RICHMOND

**ON THE FRONT COVER**  
At Harry S Truman State Historic Site, visitors can tour the small home where a future president was born.  
MoDNR PHOTO BY BEN NICKELSON

**ON THE BACK COVER**  
Missouri Grown products are available in Missouri State Parks park stores around the state, allowing guests to enjoy items such as BBQ sauce while also supporting Missouri businesses.  
MoDNR PHOTO BY BEN NICKELSON

CONNECT WITH MoDNR



CONNECT WITH MISSOURI STATE PARKS



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**ABOVE**  
A Monarch butterfly hangs among goldenrods, which are a crucial food source for the species as it makes its long migration to Mexico.  
MoDNR PHOTO BY ANDREW RICHMOND



# Harnessing Nature

## – Heating and Cooling the Indoors

by Jerry Prewett

One of Missouri's most readily available natural resources isn't a mineral or a rock – or even water – it is naturally occurring heat. Many Missourians rely on naturally stored ground temperature by using geothermal heat-transfer technologies to control indoor climate in homes and businesses.

A geothermal heat pump system can take advantage of the constant temperature of the shallow subsurface to heat a building in winter. The process reverses in summer to extract heat from the building, transferring it back to the relatively cooler ground.

The ground temperature in Missouri is 58 to 60 degrees Fahrenheit across the state. Anyone who has been in a Missouri cave or felt the cool water of one of the state's springs has experienced this consistent ground temperature. This is a general reflection of the mean annual temperature of the air, and it changes very little across the state. Some variations occur at depth depending on subsurface geology.

Sixty degrees doesn't seem warm compared to some of the geothermal hot springs in Arkansas and Yellowstone that reach 100 degrees Fahrenheit and hotter. However, geothermal heat pumps are very efficient at using ground temperatures to heat and cool buildings of all designs, sizes and ages.

Well drillers begin drilling operations for the geothermal system on the campus of Missouri University of Science and Technology, in Rolla.



(Top) Geothermal systems, like this project that began operation in 2014 on the campus of Missouri University of Science and Technology in Rolla, use hundreds of wells that are drilled at various locations.  
(Bottom) This geothermal system utilizes 789 wells, each more than 400 feet deep, to heat and cool 16 buildings totaling more than 1 million square feet of space on the campus of Missouri University of Science and Technology, in Rolla.

PHOTO COURTESY OF MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY





The Missouri University of Science and Technology geothermal heat system, on the university's campus in Rolla, uses more than 125 miles of subsurface piping for its geothermal loops serving three primary campus geothermal plants and a satellite geothermal system.  
PHOTO COURTESY OF MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY

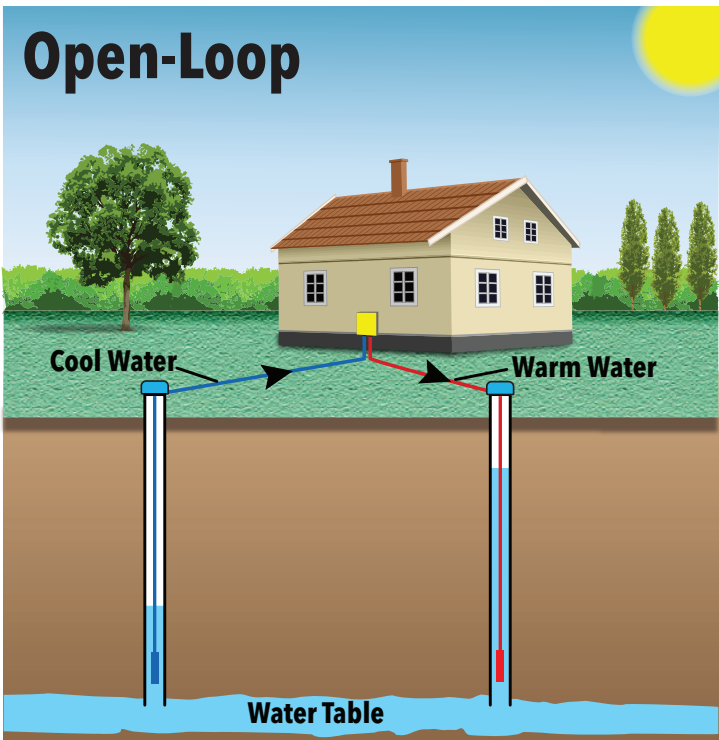
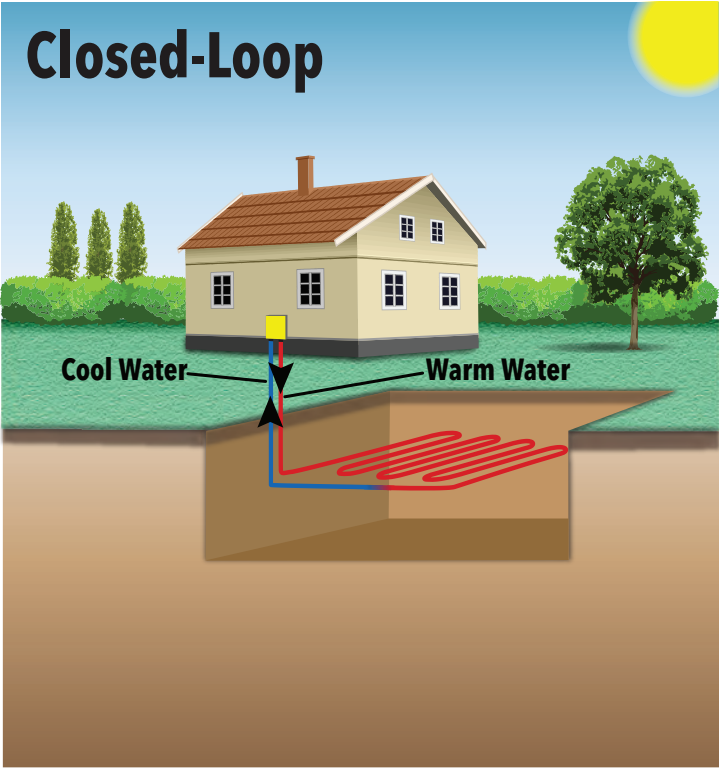
According to the Environmental Protection Agency, geothermal ground source heat pump systems are one of the most energy efficient, environmentally clean and cost-effective space-conditioning systems available. About 70% of the energy used by a geothermal heat pump system comes in the form of renewable energy from the ground. High-efficiency geothermal systems are on average 48% more efficient than gas furnaces and 43% more efficient when in the cooling mode. These systems not only are environmentally clean, but also pay for themselves in five to seven years.

"Since 2015, 1,598 closed-loop systems and three open-loop systems have been installed in Missouri," said Kyle Rollins, chief of the Missouri Department of Natural Resources' Well Installation section. "Both of our buildings in Rolla, built in the 1960s, have been heated and cooled for almost 15 years using closed- and open-loop systems." They are two of the most energy-efficient office buildings operated by Missouri state government.

The department's online Geosciences Technical Resource Assessment Tool, known as GeoSTRAT, provides information about locations of heat pump wells, groundwater temperatures and more. To access GeoSTRAT, visit [arcg.is/Gz4L1](https://arcg.is/Gz4L1). Read more online about geothermal use in Missouri at [dnr.mo.gov/geology/geosrv/geores/geothermal.htm](https://dnr.mo.gov/geology/geosrv/geores/geothermal.htm).



*Jerry Prewett is the assistant state geologist and deputy director of the Missouri Geological Survey, a division of the Missouri Department of Natural Resources.*



(Top) A closed-loop geothermal system is one of several types of geothermal systems. A mixture of water and antifreeze enters a heat exchanger located inside the home that transfers heat (or cools the home in summer) via the refrigerant in the heat pump.  
(Bottom) An open-loop geothermal system consists of pipes buried beneath the ground that use nearby groundwater for the heating and cooling exchange process.

MoDNR ILLUSTRATIONS BY MARK GORDON





# One Decision Can Catch

# FIRE

# IN A BAD WAY!

The average person makes countless decisions every day. Appropriately, we give more consideration to the really important choices, while others get almost no thought at all. Unfortunately, some of those snap decisions, which feel so small in the moment, can cause colossal problems later.



(Above) First responders work a refuse fire that began in the back of a trash truck in Columbia. The truck dumped its contents on the street to avoid damage to the vehicle.

PHOTO BY MAVERICK ALEXANDER

Take, for instance, the decisions people make about their household waste. It's common for judgments to be made about discarding most items without really weighing or even understanding the potential consequences. And if there are waste items they don't know how to handle appropriately, many people simply rely on an outdated axiom, "When in doubt, throw it out."

Sound familiar? It gets worse. Carelessly tossing some items in the trash can have serious repercussions, like causing refuse fires.

Some items can, under certain conditions, cause fires in trash dumpsters, waste collection vehicles or at landfills.

Some of the leading causes of waste-related fires are:

- 🔥 Combustion from smoldering or very hot materials, including fireplace ashes, charcoal from barbecue grills or even hot frying oil.
- 🔥 Reactions from incompatible chemicals discarded together in the same container.
- 🔥 Reactions from batteries discarded where moisture is present.
- 🔥 Spontaneous combustion of yard waste or composting materials.



Costs of a Bad Decision

A smoldering refuse fire can go unnoticed for hours. Once ignited, it can spread quickly and prove difficult and dangerous to extinguish. These fires put waste collection staff, emergency responders and the public at serious risk, as burning man-made materials could release toxic chemicals that impact the environment. Afterward, the affected facility can be left with injured staff, damaged or destroyed vehicles, lost revenue from suspended operations and higher insurance costs. The resulting increased operating costs are often passed on to the consumer.



Visit  
**call2recycle**<sup>®</sup>  
Leading the charge for recycling.<sup>™</sup>  
to find a battery recycling  
location near you.



**(Left)** If not fully extinguished, smoldering charcoal could start a fire if thrown into the trash.  
MoDNR PHOTO BY ANDREW RICHMOND

**(Right)** Excavators work to smother a fire that started in an auto-shredder fluff pile at a landfill.  
MoDNR FILE PHOTO

Deciding to Play it Safe

Preventing refuse fires begins with making good decisions about your household waste. These tips can help:

- Always be aware of items you discard and the fire hazards they can create.
- Ensure all fire and cooking residuals are completely extinguished and cool.
- Take unwanted chemicals to a local household hazardous waste collection facility or event.
- Properly recycle used batteries, especially lithium or “button” batteries. Take old batteries for recycling at a participating retailer or to a household hazardous waste collection facility or event.

*Brian Quinn is the division information officer for the department’s Division of Environmental Quality.*





# Volunteers Make a Difference at Missouri State Parks

by Amy Poos, Brian Quinn and Connie Patterson

**B**ob and Marsha Ham volunteer as Handy Hosts at Stockton State Park. Prior to that, they volunteered at Table Rock State Park. They like volunteering because of the connection with people. "The labor keeps us youthful," said Bob, who believes the work they do for state parks makes it enjoyable to volunteer.

"Volunteers at Missouri's 91 state parks supplement the efforts of our highly skilled and dedicated staff," said Ben Ellis, director of Missouri Department Natural Resources' Division of Missouri State Parks. "Even with the staunch support of Missourians for the parks, soils and water sales tax that funds the majority of our system, we still rely on our volunteers to help us be one of the best state park systems in the nation."

In 2018, around 4,000 volunteers provided more than 195,000 hours of service. This is equivalent to 93 full-time employees helping visitors make memories during their trip, according to Ellis.

"Missouri State Parks staff have so much work to do, both for natural resource management and for visitor services – much more than staff can accomplish – it's a great win-win situation when volunteers contribute," said park naturalist Roxie Campbell. "Volunteers help us accomplish so much more than what staff could do alone."

It's easy to get started, and there are a wide array of opportunities to volunteer, from uprooting invasive species at a volunteer work day to providing tours. Opportunities exist for groups and individuals.



Handy Hosts Bob and Marsha Ham enjoy volunteering because it keeps them active while they enjoy some of the state's most beautiful places.

MoDNR PHOTO BY ANDREW RICHMOND



MoDNR PHOTO BY ANDREW RICHMOND

(Top) Volunteer interpreters lead guests on tours of unique places, such as Cathedral Cave, located in Leasburg at Onondaga Cave State Park.

(Middle) Campground hosts Alan and Christine Johnson wait to greet guests in front of the campground check-in station at Stockton State Park, in Dadeville.

(Below) Group volunteers scrub the trout hatchery at Bennett Spring State Park, in Lebanon.



MoDNR PHOTO BY ANDREW RICHMOND



MoDNR PHOTO BY ANDREW RICHMOND

## Ways to Volunteer

**Campground Host** – Campground hosts are "live-in" ambassadors for a specific park or historic site. They commit to serving up to 40 hours per week for a minimum of one month and perform a variety of tasks assisting the visitors of the parks and historic sites.

**Handy Host** – Handy hosts are "live-in" ambassadors for a specific park or historic site. They commit to serving up to 40 hours per week for a minimum of one month and perform a variety of housekeeping and maintenance duties in the parks and historic sites.

**Individual Volunteer Opportunities** – Individuals can choose from a wide array of volunteer opportunities. Parks and historic sites always need interpreters, aides, trail workers, special event volunteers or park beautification workers.

**Group Volunteer Opportunities** – Groups and organizations can volunteer through the Adopt-a-Park program or by helping with specific group projects. With a required minimum time commitment, Adopt-a-Park projects can include adopting a trail, garden, campground or stream at a park or historic site. A sign is placed at the site indicating the project and the group's name.

Groups also can volunteer for short-term projects that last one day or up to one year. The group's interest will be matched with a park's needs.

## Youth Volunteer Patch Program

Any individual under 18 years of age, or organized youth programs, such as Scouts or 4-H, can volunteer for a variety of projects at a state park or historic site to earn youth volunteer patches.

Amy Poos was the division information officer for the department's division of Missouri State Parks and Brian Quinn is the division information officer for the Division of Environmental Quality. Connie Patterson is the communications director for the Department of Natural Resources.



If you'd like to be a volunteer at Missouri State Parks, call 800-361-4827 or visit [mostateparks.com/page/57875/individual-volunteer-opportunities](http://mostateparks.com/page/57875/individual-volunteer-opportunities). Individual and group opportunities are available. Please contact the park where you would like to volunteer prior to filling out any of the volunteer forms.

"Volunteers help us accomplish so much more than what staff could do alone."  
– park naturalist Roxie Campbell

**TOTAL 2018 VOLUNTEER HOURS = 195,208**  
**TOTAL 2018 VOLUNTEERS = 4,015**

**VOLUNTEER HOURS =**  
**93 FULL-TIME EMPLOYEES**

For more information,  
go to  
**[mostateparks.com](http://mostateparks.com)**



focus on fossils

# Hypsibema missouriensis

State Dinosaur

**Dinosaur bones** discovered 77 years ago on Mrs. Lula Chronister’s property in southeast Missouri made history. They were the first dinosaur bones to be identified in Missouri and they made their way to the Smithsonian Institution where they reside to this day.

In 1942, Daniel R. Stewart, a geologist with the Missouri Geological Survey and graduate of Missouri School of Mines and Metallurgy (now Missouri University of Science and Technology), both in Rolla, was researching clay deposits in Bollinger County near the town of Glen Allen, approximately 35 miles west of Cape Girardeau. While examining an outcrop of clay in a creek bank, a young boy named Ole Chronister poked his head over the top of the bank and asked what Stewart was doing.

When Chronister learned Stewart was researching clay in the area, he told Stewart there was clay on his family’s property and he invited Stewart to investigate. On-site, Stewart observed several neatly stacked bones the family had found while digging a well they later abandoned because sufficient water was not found. Stewart recognized them as being dinosaur bones, and he found more bones 9 feet below the surface. The bones were embedded in clay inside the well, marking the first known discovery of dinosaur remains in Missouri.

Mrs. Chronister gave the bones to Stewart so they could be examined by paleontologists. The vertebrae bones eventually were identified as belonging to a hadrosaur – a plant-eating duck-billed dinosaur having more than 1,000 teeth. Mrs. Chronister sold most of the bones to the U.S. National Museum, which later became the Smithsonian Institution.

Named *Hypsibema missouriensis*, it became Missouri’s official state dinosaur in 2004, two years before Stewart’s

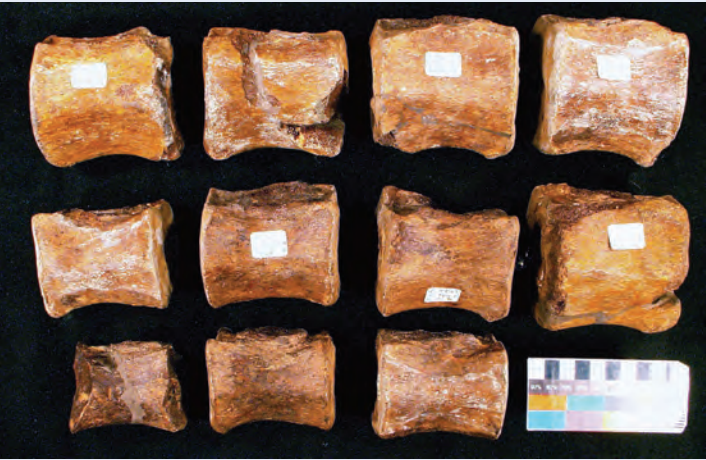


Daniel Stewart

MODNR FILE PHOTO

death. In 2016, members of the Stewart and Chronister families were honored during a ceremony held at the Bollinger County Museum of Natural History. The museum relocated to a different facility earlier this year, where a small model of the state dinosaur and a replica of one of the dinosaur’s vertebrae are on display. The museum, which highlights numerous other treasures from the region, is located at 209 Mayfield Drive in Marble Hill. Visit the museum’s website at [bcmnh.org](http://bcmnh.org).

See reproductions of the state dinosaur’s bones and a small model of the dinosaur in the Department’s Ed Clark Museum of Geology, Missouri Geological Survey, 111 Fairgrounds Road in Rolla. Learn more about the museum at [dnr.mo.gov/geology/edclarkmuseum.htm](http://dnr.mo.gov/geology/edclarkmuseum.htm).



**These vertebrae bones, found on Lula Chronister’s property, were identified as belonging to a hadrosaur that was later named *Hypsibema missouriensis*. The species became Missouri’s state dinosaur in 2004.**

PHOTO COURTESY OF SMITHSONIAN INSTITUTION.



PHOTO BY MARK GORDON

didyou know

## INSECT REPELLANT IS ESSENTIAL TO AVOIDING TICKS & MOSQUITOES

Images of glorious campfires and brisk morning and evening hikes come to mind when we think of the outdoors, but in reality, biting insects can easily spoil the adventure. Time spent outdoors can be good for the mind and body, but will inevitably result in a confrontation with pesky ticks and mosquitoes. When venturing outdoors, taking steps to reduce contact with ticks and mosquitoes not only can make the trip more enjoyable, it can protect your health.

The most important preventative measure you can take is to wear insect repellent – ideally a product containing 20-50% DEET – on your skin, clothing and footwear. For repellent applied on children, be sure to check the product label and make sure it is safe to use. Wear light-colored, long-sleeve shirts and long pants to cover exposed skin, especially if you are in a wooded area. The neutral color will help you spot any ticks that happen to tag along. You may want to consider tucking your pants into your socks as well.

To avoid mosquitoes, stay away from areas of standing water where they breed, and limit outdoor activity in dusk and dawn hours when they are most active. Avoid using perfumes and fragrances outdoors as they also can attract insects. For ticks, walk in the center of trails and avoid overhanging brush and grass. Examine your clothes frequently to check for ticks and be sure to shower soon after you return from outdoors. If you find a tick attached to your body, carefully remove it immediately.

As with any trip outdoors, a bit of planning is always prudent, so plan on following the above advice and enjoy the outdoors. Don’t let those creepy crawlies spoil your next adventure.

For more information, visit [mostateparks.com/page/69252/tick-and-mosquito-awareness](http://mostateparks.com/page/69252/tick-and-mosquito-awareness)





# Ron Jeffreys

## Park Maintenance Worker II

Missouri Department of Natural Resources  
Missouri State Parks

Please introduce yourself and tell us how long you've been working for the Missouri Department of Natural Resources.

My name is Ron Jeffreys and I've worked for Missouri State Parks since 2004. I started at Prairie State Park, went to Truman Birthplace State Historic Site, and then came here to Stockton State Park, where I'm currently employed.



### Describe your typical day-to-day job duties.

It varies quite a bit. Usually, I make a run through the park to make sure there's no vandalism, and check the wells. We keep a running log on those, so if we get some strange readings we know if we've got a water leak or that sort of thing. Once in a while we have to hit the dreaded pit toilets and make sure there hasn't been anything terrible that has happened in there. Sometimes, I might have to move the docks and the ramps, like right now when the water is coming up. Like I said, it varies an awful lot.

### How would you describe the variety of work you encounter in your job?

When I started at Prairie State Park I did a lot of welding. Their corral was in terrible shape and those bison are pretty dangerous anyway, so we did a lot of improvements over there. I welded an awful lot. Now, I have little projects every now and then. I made a pusher for the dump truck that's removable so you can push the docks in easier and not have to drive the tractor down, and that sort of thing. It's never the same. You come in and it seems like it's rare that two days in a row you're doing the same thing. You may be mowing one day and you may be cutting trees the next. It seems like there's always something. We get sent to work the bison at Prairie. We have a good burn crew in our district so we get sent quite a few places to do controlled burns.



### How do you feel your job helps to enhance Missouri's natural resources?

Well, 99.9% of the time our restrooms and our showers will be clean, and the grass will be mowed. The crew is out in the rain right now mowing to keep the grass down. We take care of a lot of invasive species, too, and you're not going to have a big limb lying in your camping area.

### What would you tell someone thinking about a career at MoDNR?

There's always something different going on, and you're not going to get bored. The supervisors that I've been involved with are very respectful and considerate. You get along with everybody a lot better as a whole. I really like the people I work with all the way up. I've worked a few places and working for Missouri State Parks is the first job where I have actually enjoyed coming to work. Every other place, it's just been a job.



Watch Ron's interview on YouTube.

(Top and Bottom, Left) An experienced welder, Jeffreys can make tools that help make normal tasks like changing lawn mower blades, faster and easier.

(Above) The people Jeffreys works with are among the most enjoyable parts of his job.

MoDNR PHOTOS BY ANDREW RICHMOND



Beth Bazal, site administrator at Harry S Truman State Historic Site, welcomes guests to the modest home where President Truman was born.

# A Trilogy of History in Southwest Missouri

by Beth Bazal  
photographs by Ben Nickelson

What do a Native American Village, a Civil War Battle and a presidential site have in common? All three are state historic sites in southwest Missouri and can be visited in one day.

Osage Village State Historic Site is located north of Walker, in northeast Vernon County. There you will find an interpretive trail of what was once a village of 2,000-3,000 people. The Osage people were first recorded in this area from 1700-1775, and archaeological research conducted at the site provides information from their daily life in the village. Through interpretation, visitors can visualize what was once a bustling village.







2,000–3,000 person village interpretive trail  
10-Mile Radius War 1,100 SOLDIERS AGAINST 6,000  
1880–style decor president birth home MO State Guard

(Right) Guests at Battle of Carthage State Historic Site can view Carter Spring and a small bluff at the site.  
(Below) Interpretive panels at Osage Village State Historic Site provide information about the natives who once occupied the site in northeast Vernon County.



(Far left) Harry S. Truman Birthplace State Historic Site gives guests a peek at rural Missouri life in the 19th century.  
(Middle, Left) A stone memorial at the site commemorates the property's significance in the life of our beloved former President Harry S. Truman.  
(Left) Guests at Osage Village State Historic Site can view markings left by natives from activities like cracking nuts and construction tools.

The Battle of Carthage was fought July 5, 1861, and was one of the earliest engagements of the Civil War. It preceded the Battle of Bull Run by 11 days. The battle was a clash between the Missouri State Guard, which was a pro-southern group, against a Union volunteer regiment. Battle of Carthage State Historic Site is the location where both sides camped, as well as where the last skirmish of the battle took place. Colonel Franz Sigel and his army of 1,100 well-trained, fully armed soldiers were sent to southwest Missouri to stop Governor Claiborne Jackson's army of 4,000 armed and 2,000 unarmed soldiers in a mobile engagement that spanned a radius of 10 miles. Guests at Battle of Carthage State Historic Site can tour Carter Spring and a bluff, and the site has been left mostly unchanged since 1861.

The 33rd president of the United States was born May 8, 1884, at what is now Harry S. Truman Birthplace State Historic Site. John and Martha Truman (Harry S. Truman's parents) purchased the 20-ft. by 28-ft. house and adjoining land in Lamar in 1882, and when Harry was 11 months old, the family moved back to their native home in the Kansas City area. The house is filled with 1880s-style furniture and depicts life in rural Missouri during the 19th century. The original smokehouse and hand-dug well remain on the property today. Guided tours are provided Wednesdays through Saturdays from 10 a.m. until 4 p.m., and on Sundays from noon until 4 p.m.

Spend the day visiting three very different historic sites imperative to Missouri history, all located within an hour drive of one another.



# Top Spots to Paddle Board



Now that summer is here, you may be tempted to daydream of outdoor adventure that likely involves cool, refreshing water. What better way to make your summer daydreams come true than to try something new?

If you have checked canoeing, kayaking and tubing off your list, you may want to check out an activity that is all the rage. It's called paddle boarding.

A growing number of Missouri State Parks offer paddle board equipment rentals, not to mention great places to paddle for everyone from greenhorns to experienced boarders.

### Where to Go

- Pomme de Terre State Park - Paddle board rentals are available at the Hermitage campground store starting at \$20 for 2 hours.
- Finger Lakes State Park - Equipment is available for rent at the park office starting at \$20 for 2 hours, or \$35 for the entire day. Guests can paddle around Peabody Lake and check out the park's water trail.
- Thousand Hills State Park - Equipment is available for rent at the State Park Marina starting at \$15 for the first hour and \$5 for each additional hour. Forest Lake offers an abundance of activities in and around the water.
- Ha Ha Tonka State Park - If you're an experienced paddle boarder with your own equipment, you may want to check out the Big Niangua Water Trail at Ha Ha Tonka State Park. The 13.4-mile trail offers views of landmarks such as Onyx Cave, the Tunnel Dam Powerhouse and Whistle Bridge, as well as wineries and vineyards along the way.

(Middle) Guests paddle board along the Big Niangua River Trail at Ha Ha Tonka State Park. The water trail features marked points of interest along the shoreline, and spans 13.4 miles.

MoDNR PHOTOS BY BEN NICKELSON



### What to Expect

From the shore, paddle boarding doesn't look that difficult – no big deal, right? Learning to get on the board, stand up and start paddling can be a bit challenging for some. In fact, you might want to remember the most common lesson learned by the average first-time paddle boarder: Plan on getting wet.

Here's the second lesson for first-timers: Don't hit your first paddle boarding experience too hard, either. Paddle boarding is a lot of fun when you get the hang of it, but it also takes more than a little effort. In fact, it's an activity that engages every major muscle group, from your feet and legs, through your core and into your back, shoulders and arms.

So, if you could use a little less ice cream and a lot more exercise in your life, paddle boarding might be just be the new outdoor adventure you've been looking for. Visit [mostateparks.com](http://mostateparks.com) to find out more.



(Above, Top) Paddle boarding is allowed on Peabody Lake at Finger Lakes State Park. (Above, Bottom) Guests can rent paddle boards at the Thousand Hills State Park marina for a small fee.

MoDNR PHOTOS BY BEN NICKELSON



# St. Joe State Park



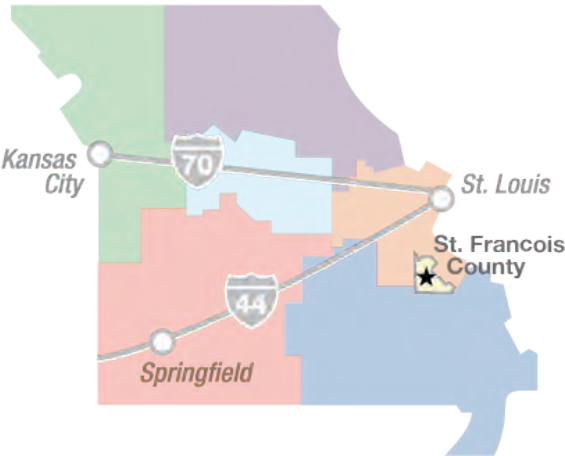
If you are into trails and like variety, then you will love St. Joe State Park. At more than 8,000 acres, the park has a varied terrain that provides five different types of trail—hiking, bicycling, horseback riding, off-road vehicle and aquatic.

The park may be best known for its off-road vehicle trails developed on the landscape created by a former lead-mining operation. In addition to its distinctive feature of 800 acres of sand flats, the park has maturing second-growth forests of oak and hickory. These areas provide the perfect setting for hiking, bicycling and horseback-riding.

The newest addition is an aquatic trail around the shoreline of Monsanto Lake. A brochure interprets the different stops along the way.

- (Left) St. Joe State Park features 54 miles of off-road vehicle trail.
- (Top, Right) A bicyclist rides the 11-mile paved bicycle trail.
- (Middle, Right) A youth riding trail offers a controlled environment for young riders to learn how to ride safely.
- (Bottom, Right) Two trails and a campground are designated for equestrian use.
- (Bottom, Far Right) The new aquatic trail is an excellent way to view wildlife such as this red-winged blackbird.

MoDNR PHOTOS BY BEN NICKELSON





butnot least

# Recapture, Reclaim Redeem

by Andrew Richmond

As a boy, when Cameron Gehlert gazed out the window on family road trips, he wasn't playing roadside bingo; he was counting trash. After learning in school where trash goes and combining his observations about the amount of litter he saw around him, worry set in. Will we run out of space for the stuff we throw away? He decided something had to be done.

He started small. As a student at Linn R-2 Middle School, he convinced 100 of his fellow students to participate in a small paper recycling program. He brought his ideas to high school the following year, while also expanding the project to include elementary students and inspiring a new generation to want to recycle. "That's kind of what I was really happy about, because they are going to grow up and continue with that wanting to recycle," Gehlert said.

By Christmas his freshman year of high school, he had asked his parents to gift him a cardboard bailer so he could scale up his operation. He got what he wanted and even pitched in some of his own money to make it happen. "Towards my sophomore and junior year, that's why I started getting lots of cardboard and popping out multiple bails a week," Gehlert said. "I actually had to turn down some people because I had so much cardboard by my senior year, I didn't have the time or resources."

As word got out in the community, Gehlert became the go-to resource on how to recycle anything from metal to old electronics.



If someone needed information on how to get rid of an item, Gehlert was happy to help. Many times he'd take the item to recycle it for them.

Now a student at Westminster College in Fulton, Gehlert has taken his ideas about recycling to campus. He's joined the Environmentally Concerned Students club and is excited to bring his knowledge of recycling and composting to the campus EcoHouse. In addition, he also wants to start giving seminars during freshmen orientation on how to recycle properly.

Gehlert is on a mission and he's clearly finding success everywhere he goes. We can all help him out by making an effort to recycle whenever we can. He's pretty sure we'd enjoy it, too. Gehlert says, "People really don't like to throw stuff away."



Watch Cameron's interview on YouTube.



(Opposite Page) Cameron Gehlert became a go-to source in his community for information on how to recycle various items from paper to electronics.  
(Top) Gehlert sorts a load of materials at school as he prepares to haul it to a recycling center.  
(Left) Gehlert asked for a cardboard bailing machine for Christmas so he could handle larger quantities of the material.  
PHOTOS COURTESY OF GLORIA GEHLERT



## Missouri Grown

Missouri State Parks is proud to support Missouri-made products and businesses. In some of our park stores, you can find locally-made BBQ sauce, peanuts, dog treats and more. Next time you're browsing for a souvenir, look for the sign and consider something Missouri Grown.

Learn more by visiting [missourigrownusa.com](http://missourigrownusa.com).



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[dnr.mo.gov](http://dnr.mo.gov)



[www.MissouriGrownUSA.com](http://www.MissouriGrownUSA.com)

